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SLIM:A Template-Based Second Language Instruction Management System

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Abstract

Course Management Systems (CMSs) have been used worldwide by language educators for second language teaching and learning. Nevertheless, no CMS has been designed for specifically, for language instruction. In this context, there is a clear lack of subject-specific focus within the current generation of language management systems. This paper argues that the lack of support for language teaching and learning in current CMSs points to the need for an investigation on how to integrate such support into the design of CMSs. Based on a study carried out on language instructors in selected Malaysian universities, this paper presents a template-based CMS specifically design of ESL instruction in Malaysia known as SLIM (Second Language Instruction Management system developed by the authors. The templates are designed to facilitate online ESL activities related to the four skills: reading, writing, speaking and listening.

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Keywords: Course Management Systems; Template-based CMS.

1. Introduction

Course Management Systems have been adopted by some language teachers for their classes. However, to date, there are only two Course Management Systems that claim to be specifically designed for language teaching and learning. The need to design a Course Management System for specific purpose stems from the weakness of current systems (Kuriloff, 2001). Vendors or developers of Course

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Management Systems often label their products as very suitable for learning without taking into account the fact that the learning of different disciplines may very well require different approaches in the design of the systems and the tools within. In this context, there is a clear lack of subject-specific focus within the current generation of course management systems. Based on surveys carried out on language instructors in selected universities in Malaysia, this article presents a design concept based on the application of templates within a Course Management System in order to make it more focused on the needs of the subject i.e. second language instruction. The templates are designed for enabling common language activities related to the four skills: reading, writing, speaking and listening.

This article presents a portion of a larger study to design a set of specifications for a Course Management System specifically for second language instruction in Malaysian Institutions of Higher Learning.

2. Methodology

A survey was carried out on 31 English language instructors at selected universities in Malaysia. The institutions were selected based on their implementation of course management systems. As they have been using such systems, it was assumed that the instructors would be familiar with issues concerning the use of course management systems. The instrument used is a 41-item questionnaire. The questionnaire is divided into three sections: background info, Course Management System tools and tools for the four language skills. It is designed to elicit both quantitative data and qualitative data by including open-ended questions as well. It went through a piloting process to determine content validity and usability by having it checked by three lecturers and four language teachers at Universiti Kebangsaan Malaysia and the Multimedia University.

The focus for this article is on the sections concerning the use of templates for each of the language skills. The instructors were asked if they would like to use templates to create activities for the language skills. The following are sample questions for writing skills:

Q27. Would you like to use a CMS that allows you to create writing activities online i.e. it comes with a set of 'templates' for writing activities?

Q28. Would you like the ability to create your own 'templates' even if it means you'll have to learn more about the technical aspects in order to do it?

The analysis presented will follow the responses for each of the four language skills: reading, writing, speaking and listening.

3. Reading

The respondents were asked "Would you like to use a Course Management System that allows you to create reading activities online i.e. it comes with a set of 'templates' for reading activities?". Their responses were overwhelmingly "Yes" (26 or 83.9%), with five answering "Not Sure". Most significantly, none answered "No". It seems that the majority recognizes the value of having 'templates' for conducting reading activities within the course management systems. When asked "Would you like the ability to create your own 'templates' even if it means you'll have to learn more about the technical aspects in order to do it?", the majority (80.6%) answered "Yes". Again, this shows that if instructors perceive a tool or platform to be friendly to their needs, they would spend time and energy to make it really work for them.

4. Writing

In the section for writing, the respondents were asked if they would like to use templates for creating writing activities in a course management system. Figure 1 shows their response to the question:

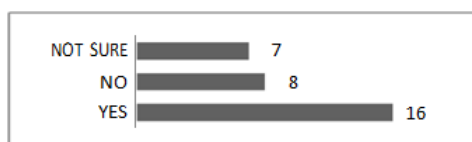


Fig. 1. Tabulation of Response

It seems that the number of respondents who answered 'Yes' for writing templates in a CMS is only 16 or 51.6%. This is much less than the 83.9% 'Yes' for reading templates. It could be explained by the fact that writing activities, offline or online, take up much more time and effort on the part of the instructors compared to reading. For example, writing activities will almost always require more time for marking compared to reading activities.

The respondents seem to like the idea of creating their own templates probably because it will give them more control over the system. When asked "Would you like the ability to create your own 'templates' even if it means you'll have to learn more about the technical aspects in order to do it?" . Those who answered 'Yes' is 23 or 74.2%, which is only slightly less than the 25 (80.6%) for 'Yes' in the similar question for reading, even though not as many like to use a CMS to create writing activities online (51.6% for writing versus 83.9% for reading).

5. Speaking

When asked if they would like to use "a CMS that allows you to create listening activities online i.e. it comes with a set of 'templates' for listening activities e.g. listen and answer comprehension questions, listen and summarize?", 28 or 90.3% answered "Yes" with none of the respondents saying no to the prospect of using such a Course Management System. It seems that a clear majority would like to use such 'templates'. The result is similar to the one for reading, which is another receptive language skill. When asked if they would like to have the ability to create their own templates even if they have to learn more about the technical aspects, 87.1% (27) of the respondents answered "Yes". Four said they are not sure and again, none chose "No". This is encouraging as it shows that the instructors are willing to learn if they perceive technology to be malleable to their needs.

6. Listening

The respondents were then asked if they would like to use a CMS that comes with 'templates' for them to carry out speaking activities online. The number who said "Yes" is 29 or 93.5% of the respondents, and none of them said "No". This high percentage again seems to suggest that language instructors would very much like to have the appropriate tools specific to their needs. Finally the respondents were asked if they like "the ability to create your own 'templates' even if it means you'll have to learn more to use it?". Again the answer is in the high affirmatives with 25 or 80.6% of them saying "Yes", the rest said "Not Sure" and none said "No". This has been a significant pattern repeated for all the four language skills. It suggests that educators are increasingly becoming smart users of technology and are willing to expend time and energy if they believe they can make technology works for them.

7. Template-Based Design

The overwhelming response is for a Course Management System that provides for their language teaching needs in the form of template-based activities for the four language skills. These templates should aim to make it easy for instructors to create, deliver, manage and evaluate activities or tasks related to the language skills. The exact nature of the templates available would of course vary, but the objective is to keep things simple and manageable. A simple example would be a reading comprehension template that follows the format of ‘read-then- answer-multiple-choice-questions’. The template would present two ‘sub- containers’ to the instructor. The first one is to let the instructor input the reading text, which could be supported by additional embedded multimedia materials. When it is done, the instructor will be presented with the second ‘sub-container’ for the quiz where the comprehension questions are input. The final stage would be to add other parameters such as time to do questions, whether the feedbacks are displayed immediately after the responses etc. Table 1 shows some possible ‘templates’ for each of the language skills.

Table 1: Possible templates for language activities

Reading
Read-answer comprehension quiz.
Read-record answer in audio.
Read-discuss-write blog.
Writing
Listen-then write essay.
Write-then discuss writing (peer review).
Surf-discuss-then write blog.
Speaking
Read-then record audio.
Discuss-then record audio.
Listening
Listen-answer comprehension quiz
Watch movie – answer quiz.
Listen-discuss

8. Slim

Based on the findings of the survey, a prototype was designed by the authors to meet the requirement of a Course Management System with templates to carry out language activities online. The prototype is called SLIM (Second Language Instruction Course Management system) (see Figure 2) and the initial design objective is to also enable instructors to create their own templates. However, due to time and financial constraints of the research, the ability for users to create their own templates was dropped from the final design.

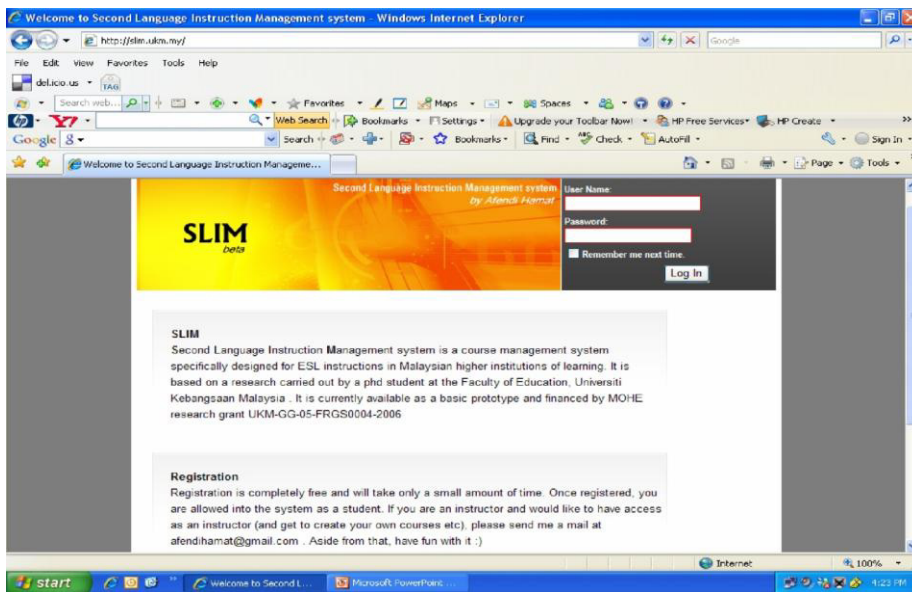


Fig. 2. Homepage of SLIM

SLIM functions like most course management systems with the ability to carry out common tasks such as uploading learning materials, managing class rosters and basic communications functions (such as forums and announcements). Its architecture is also similar to most other web-based applications i.e. based on a client-server model with a database backend. Figure 3 shows the basic architecture of the system.

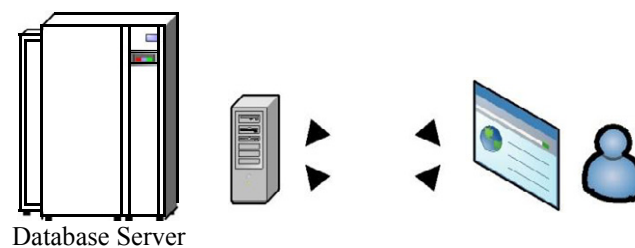


Fig. 3. Basic Architecture of SLIM

What differentiates SLIM from other course management systems is the fact that it has been designed from the ground up to meet the needs of language instructors. It does not try to be a 'fit-for- all' learning platform as it has been recognized that every single discipline is unique in terms of its requirements. The template system implemented in SLIM caters to the four language skills. Figures 4, 5, 6, 7, 8, 9 and 10 show the processes involved for an instructor to create an activity based on the templates in SLIM.

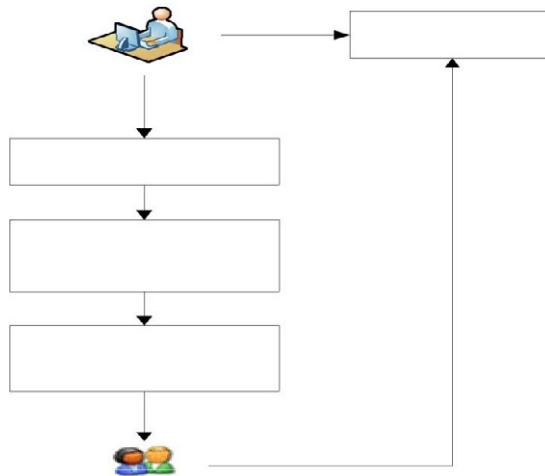


Fig. 4. Process for creating activity based on SLIM templates

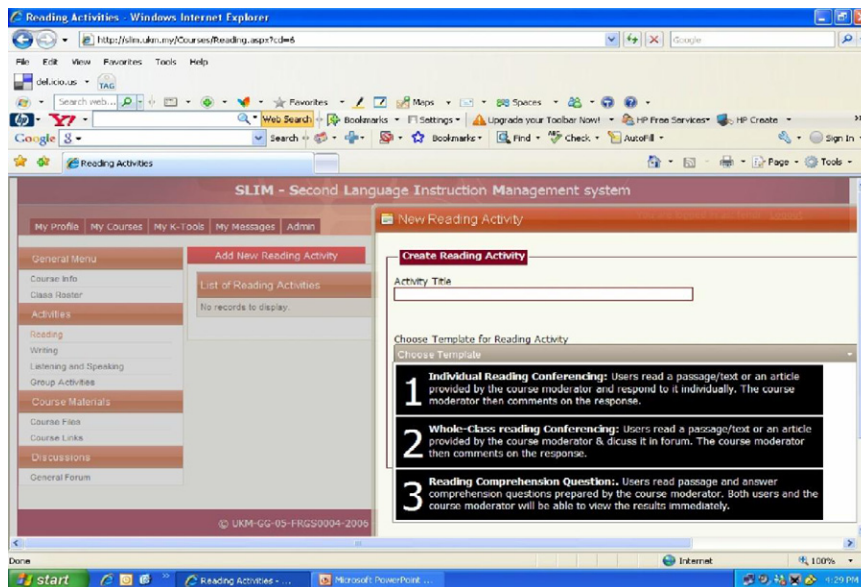


Fig. 5. Selecting Template for Reading Activities

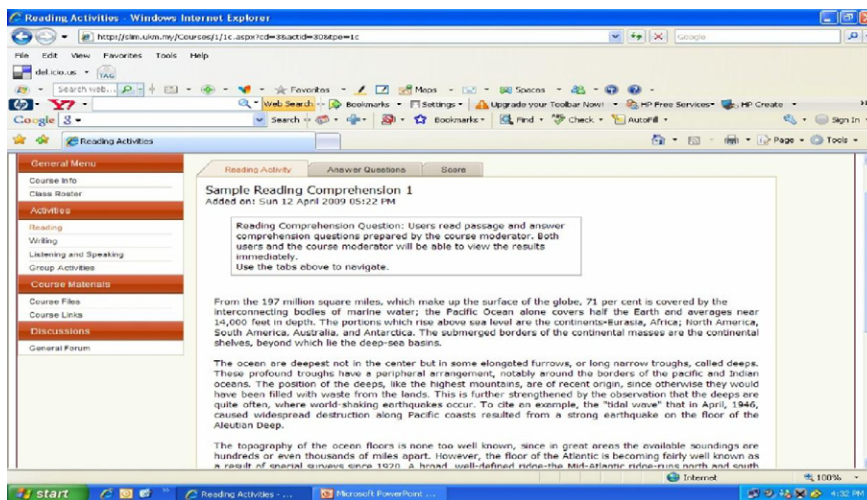


Fig. 6. Building Reading Activities

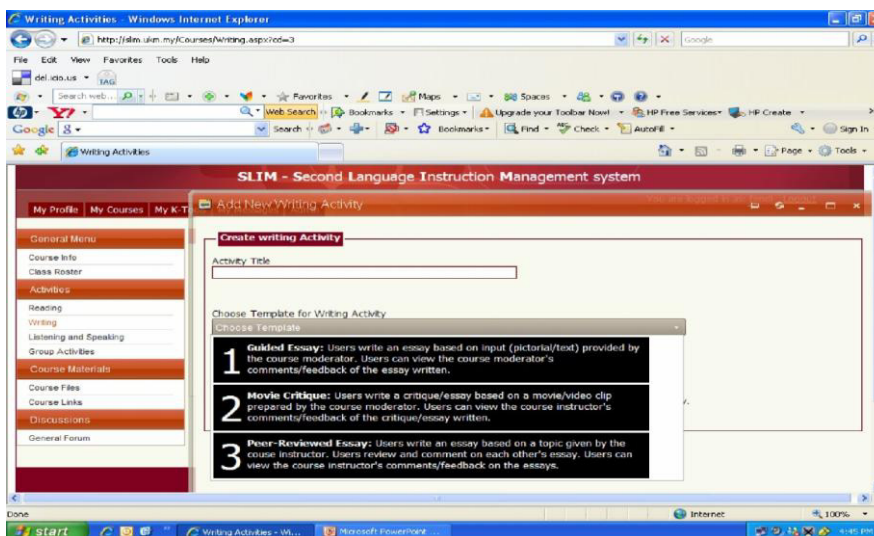


Fig. 7. Selecting Templates for Writing Activities

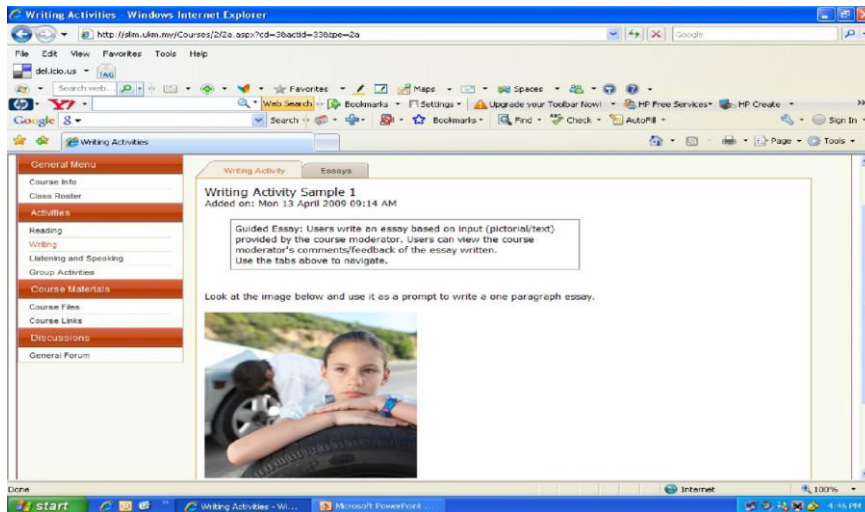


Fig. 8. Building Writing Activities

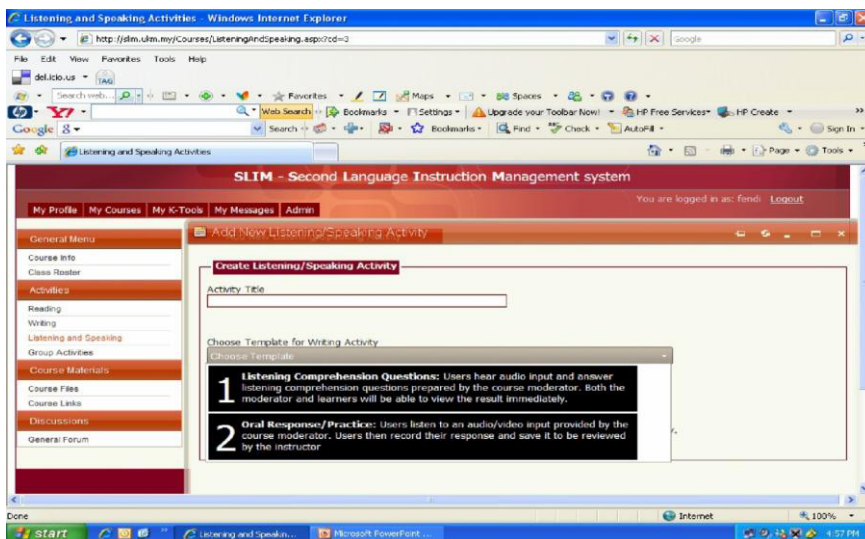


Fig. 9. Selecting Templates for Listening/Speaking Activities

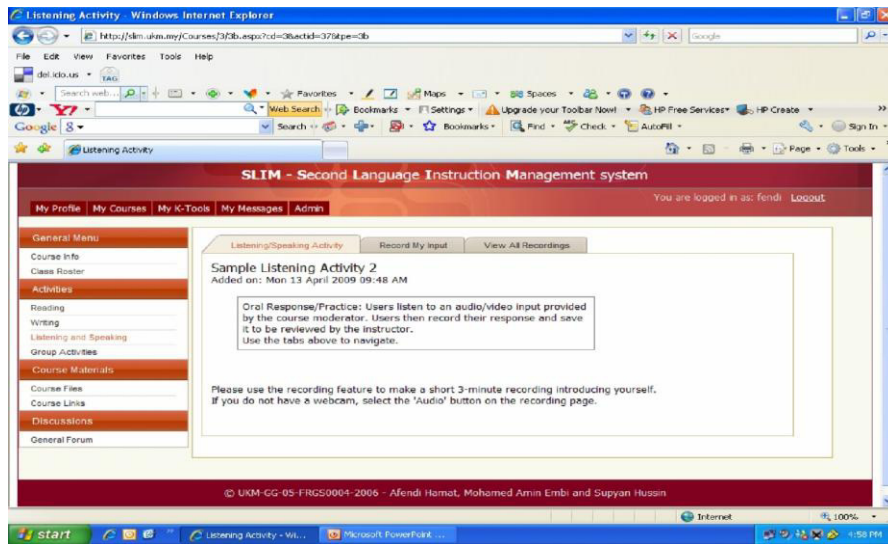


Fig. 10. Building Listening/Speaking Activities

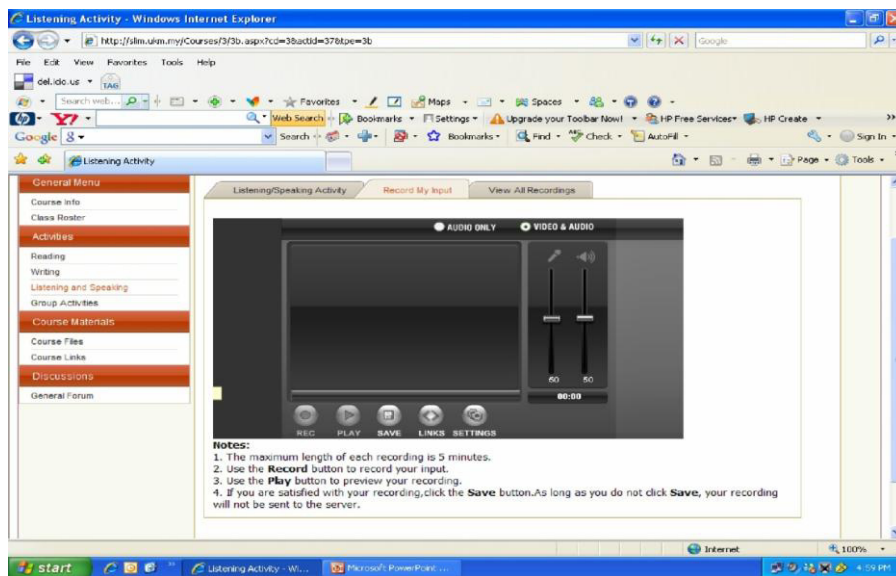


Fig. 11. Facilities for Handling Video/Audio Files

SLIM is also capable of advanced handling of video and audio files and streams (see Figure 11). These features include direct capture of audiovisuals from a student's webcam that can then be saved into the database to allow viewing and grading by the instructor. This is an important feature as it allows for more diverse activities required to train students in listening and speaking. The technology behind SLIM

is based on Microsoft .NET platform, specifically ASP.NET and SQL Server. In addition, Adobe Flash Interactive Server is used to provide the environment for multimedia streaming and management.

9. Conclusion

Human learning encompasses a very wide range of possibilities. The variables are even greater when the specific needs of every discipline are taken into account. It is clear that a course management system cannot account for the needs of every discipline being taught at higher institutions of learning. The most logical way is provide templates that would be able to meet the needs of each discipline. The templates listed in this chapter are only a part of what is possible if a Course Management System has such template system in place for language activities. What is equally important is that the respondents indicate a high level of willingness to create their own 'templates'. This means that the designers and developers of a Course Management System will have to make the 'building blocks' available in a flexible and easy to use manner. Programmatically, it would be quite a challenge, but it is not beyond the realm of possibility.

Ronkowski (2006) argues that the inclusion of pedagogical tools such as templates can serve to promote faculty development and student learning. She also argues that using a Course Management System for normal course management tasks leaves the potential of such systems unrealized. A template system for creating online language learning activities within a Course Management System would help to push the usefulness of the Course Management Systems to the teaching and learning of language.

References

- Kuriloff, P.C. 2001. One Size Will Not Fit All. *The Technology Source*, July/August 2001.
(Online)<http://ts.mivu.org/default.asp?show=article&id=899> . (13 March 2005).
- Ronkowski, S. 2006. Using Course Management Systems to Foster Faculty Development. In T. Reeves & S. Yamashita (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2006*. 1434-1436. Chesapeake, VA: AACE.